



This manual has been scanned by the  
Vickers MG Collection & Research Association

[www.vickersmg.org.uk](http://www.vickersmg.org.uk)

Please support the work of the Association.

Click on the image to donate through PayPal:



Or regularly support us through Patreon:





368  
27.5.42 D. A. Brown  
MGS-S. 325(N)

20,000

NOT TO BE PUBLISHED

The information given in this document is not to be communicated, either directly or indirectly, to the Press or to any person not holding an official position in His Majesty's Service.

Office  
6559/G. S., M.T. 2(P)



# Small Arms Training

Volume I, Pamphlet No. 15 (India)

## Annual Range Course

Medium M. G. Bns and support pls. armed  
with V. M. Gs.

Regular Army

1942



No. and date of correction.	Initials of person by whom posted and date.	No. and date of correction.	Initials of person by whom posted and date.

## GENERAL INSTRUCTIONS.

	PAGE
1. Object ... ..	3
2. Individual—	
1st year men ... ..	3
2nd „ „ ... ..	3
3rd and subsequent year men ... ..	3
Collective—	
Part III ... ..	4
Part IV ... ..	4
3. Classification ... ..	4
4. Exemptions ... ..	4
5. Repetition ... ..	4
6. Targets ... ..	5
7. Testing of guns and tripods ... ..	5
8. Dress and equipment ... ..	6
9. Service bursts ... ..	6
10. Firing over time ... ..	6
11. Range requirements (Individual Firing) ... ..	6
12. Ammunition allotment— <i>per capita</i> ... ..	8
13. Ammunition allotment—Unit ... ..	8
PART I—	
Object ... ..	9
Conduct ... ..	9
Practices ... ..	9
Ammunition Summary ... ..	11
PART II—	
General Notes ... ..	11
Practices (Part II-A) ... ..	11
Field Range Practices (Part II-B) ... ..	17



	PAGE
Ammunition Summary ... ..	20
Classification ... ..	20
<b>PART III—</b>	
Object ... ..	21
Gun position ... ..	21
Range requirements ... ..	22
Danger Area ... ..	22
Targets ... ..	22
Ammunition ... ..	22
Heading A ... ..	24
„ B ... ..	25
<b>PART IV—</b>	
General ... ..	25
Object ... ..	26
Framing of exercises ... ..	26
Danger Area ... ..	27
Method of conducting ... ..	27

## MACHINE GUN COURSE

(Medium Role)

### GENERAL INSTRUCTIONS

#### Object

1. The course is designed to provide progressive training for the soldier and to make him a practical service shot as an individual in Parts I and II and as a member of a fire unit in Parts III and IV.

In Part I the soldier learns to shoot at short Machine Gun ranges under the easiest conditions as an individual shot. In Part II he goes a stage further and learns to shoot at medium machine gun ranges under more difficult conditions and is tested in his ability to pick up and hit targets at such ranges if section control has broken down. He is still tested as an individual shot. Soldiers in their second and subsequent year in the M. G. Bn. only fire practices in Part II to retain their efficiency.

#### Stages

#### INDIVIDUAL

##### 1st year men

(Part I) 25 yards

2. Before this part is fired the Vickers gunner must pass T. O. E. G.D. (See S.A.T., Vol. I, Pamphlet 7, Pt. II.)

All men will complete this part before firing Part II. This course is fired at 25 yards and is of an instructional nature.

##### 2nd year men

(Part II)—All Practices

All members of a M. G. Section in their second year will complete a course which entails a knowledge of their responsibilities as the firer of one gun of a section and in maintenance of the gun.

##### 3rd and subsequent year men

(Part II)—All Practices

All machine gunners who attain the standard of efficiency set for second year machine gunners will in subsequent years be tested in non-firing practices, maintenance of the gun and in the use of a gun aiming mark.



### COLLECTIVE

(a) *Part III* should be fired at the beginning of collective training and during section training. While the main object is to practise fire unit commanders in control of fire, all machine gunners will simultaneously be practised in fire discipline and maintenance of the gun. (See Pamphlet No. 1 (India), Sec. 3, para 38.)

(b) *Part IV* will be fired during collective training and machine gunners will have further opportunity of being trained in their tactical duties and responsibilities as members of a platoon. It is therefore desirable that this part should be carried out at the conclusion of section and platoon training.

### Classification

3. There is a great difficulty in assessing the qualification of a machine gunner in standards as a result of hits on a target. The beaten zone covers a considerable depth at the ranges at which 2nd year machine gunners fire. These depths may vary owing to ground in the various stations in which firing will take place. In addition, opportunities for observation will vary. It is impracticable to describe an area around each target to conform with the beaten zone. Thus, although it is possible that an individual who may fulfil all the requirements of a machine gunner in laying his gun, may suffer by not recording any hits, this is unlikely, and the basis of calculation will be one hit at least on the target in each firing practice.

All men will be classified as:—

Marksmen.  
Service Shots.  
Failed.

Failures in any non-firing practices or in maintenance of the gun in action will be re-tested once in any one of these in which the firer failed.

### Exemptions

4. Section Commanders, Platoon Commanders, V.C.O.'s. and I.W.O.'s and full rank N.C.O.'s will be exempt from *Part II* after qualifying as 1st year men.

### Repetition

5. There will be no repetition, but a man who fails to qualify as a 1st year machine gunner will fire the same course

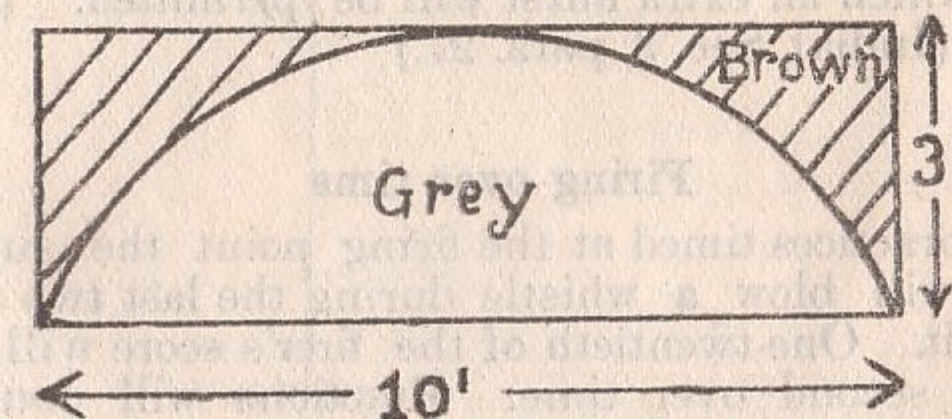
in his 2nd year; if he fails again he should no longer remain as a firing member in a M. G. Section. If he qualifies he will also fire the 2nd year course but if he fails in this he will not remain as a firing member in a M. G. Section.

The ammunition for the further practice of backward men will be found from the C.O.'s pool.

### Targets

6. (a) *Part I*
  - (i) Plate 66, S.A.T., Vol. V, 1931.
  - (ii) Plate 67, S.A.T., Vol. V, 1931.
  - (iii) Plain white screen.
- (b) *Part II-A*
  - (i) Open country or landscape.
  - (ii) Plate 67.
  - (iii) Plain white screen.
- (c) *Part II-B* Screen to represent a camouflaged position, 10' x 3'. (This target is a Field Firing Store.)

FIG.1



### Testing of Guns and Tripods

7. (a) (i) It is essential that the guns and mountings should be in such a condition that a group within the permissible limits is attainable. They should be tested, if possible, in the presence of the firers.
- (ii) A similar test will be made at any time when it is suspected that the standard group is not being obtained.

(b) Before firing *Part II*, the barrel will be tested for accuracy. If it fails to reach the standard laid down it will be noted as inaccurate and exchanged. It is unnecessary to carry out



the test of the complete gun in this case unless it is found to be inaccurate when fitted with a known good barrel.

(c) For details of these tests see Pamphlet No. 1 (India), Appendix I.

(d) If, when using the tangent sight, the point of mean impact of a group does not strike the target the correct distance to the right of the point of aim, the foresight must be adjusted. (See Pamphlet No. 1 (India), Appendix I.)

### Dress and Equipment

8. For Part I, No Equipment.

For the remainder, Service dress—Fighting Order. (See Pamphlet No. 1 (India) Sec. 3, para. 24.)

### Service bursts

9. Individual practices will be fired in service bursts (i.e., minimum of 25 rounds each.)

The number of bursts to be fired in each practice is not to exceed the number of rounds divided by 25, unless a stoppage occurs, for which an extra burst will be permitted. (See Pamphlet No. 1 (India), Sec. 3, para. 27.)

### Firing over time

10. In practices timed at the firing point the superintending officer will blow a whistle during the last two seconds of the time limit. One-twentieth of the firer's score will be deducted for each second over time. Fractions will count as the next higher point, e.g., a firer is one second over time, his score being 48, deduction will be:—

$$1/20 \times 48 = 2.4 = 3 \text{ points.}$$

### Range requirements

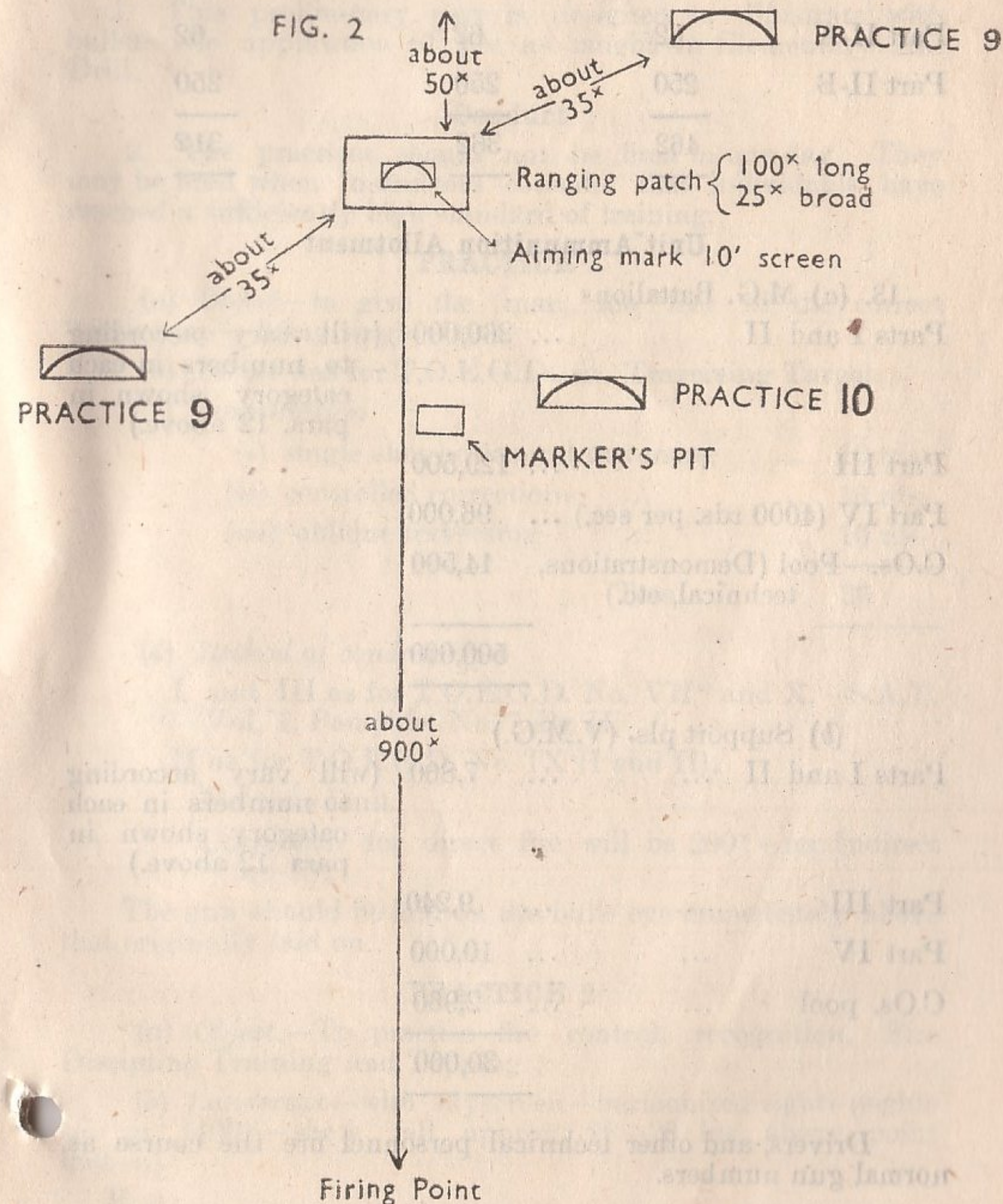
(Individual firing)

11. 1st year men fire on an ordinary thirty yards or classification range Part I.

All men will fire on a Field Range at approximately 950 yards. (See Part II.)

Each gun will require an arc of 6 degrees (lateral width of approximately 100 yards) with a marker's pit in the target area.

A diagram of the suggested lay-out for Part II-B is given below (Fig. 2). This lay-out is not intended to be copied slavishly and the position of the targets for Practices 9 and 10 should be varied from day to day or even after a number of details have fired on one day.





## Ammunition Allotment

## 12. Rounds per capita.

	New hands.	2nd year men.	3rd year and older.
Part I	150	50	—
Part II-A	62	62	62
Part II-B	250	250	250
	<u>462</u>	<u>362</u>	<u>312</u>

## Unit Ammunition Allotment

## 13. (a) M.G. Battalions

Parts I and II	... 260,000	(will vary according to numbers in each category shown in para. 12 above.)
Part III	... 129,500	
Part IV (4000 rds. per sec.)	... 96,000	
C.Os. Pool (Demonstrations, technical, etc.)	14,500	
	<u>500,000</u>	

## (b) Support pls. (V.M.G.)

Parts I and II	... 7,800	(will vary according to numbers in each category shown in para. 12 above.)
Part III	... 9,240	
Part IV	... 10,000	
C.Os. pool	... 2,960	
	<u>30,000</u>	

Drivers, and other technical personnel fire the course as normal gun numbers.

## PART I

## Instructional for 1st year men

## To be fired at 25 yards

## Object

1. This preliminary part is designed to illustrate with bullets the application of fire as taught in Elementary Gun Drill.

## Conduct

2. The practices should not be fired in one day. They may be fired when instructors consider that individuals have reached a sufficiently high standard of training.

## PRACTICE 1

(a) *Object*—to give the man the feel of the correct 'service tap'—firing single shots.

(b) *Target*—as for T.O.E.G.D., i.e., Traversing Target.

(c) *Ammunition*

(i) single shot horizontal traversing	... 10 rds.
(ii) controlled corrections	... 10 rds.
(iii) oblique traversing	... 10 rds.

Total ... 30

(d) *Method of conducting*—

I and III as for T.O.E.G.D. No. VII<sup>x</sup> and X,—S.A.T. Vol. 1, Pamphlet No. 7 Pt. II.

II as for T.O.E.G.D. No. IX (I and II).

No time limit.

Correction for direct fire will be 200<sup>x</sup>—for Indirect fire 15'.

The gun should be laid on the bulls eye immediately above that originally laid on.

## PRACTICE 2

(a) *Object*.—To practise fire control, recognition, Fire Discipline Training and Tapping.

(b) *Landscape*—with skyscreen—harmonized sights (sights set at 1400<sup>x</sup>—shots fall approx. 26—28 ins. above point laid on).



(c) *Ammunition*—10 rds.

(d) *Method of conducting*—

Guns—single shot load.

N. C. O. tested for Fire Control, gun numbers for recognition and fire discipline if Nos. recognize correct Target, shots fall 26—28 ins. above object (measured with a yard stick)—taps should make shots fall 4 ins. apart (15' at 25 yds.)—No time limit.

### PRACTICE 3—Length of Burst

(a) *Object*.—To give the man the feel of the smallest service burst (25 rounds).

(b) *Target*.—Plate 66.

(c) *Ammunition*.—50 rounds.

(d) *Method of conducting*.—The belt will be spaced in 2 groups of 25 rounds each. The instructor will order the firer to lay on one of the isolated bulls with 450 yards on the tangent sight. He will check the aim and order "FIRE—STOP"—He will watch the firer to determine whether the correct procedure has been carried out.

### PRACTICE 4—Immediate action

(a) *Object*.—To practise rectification of stoppages.

(i) *By day*.

(b) *Target*.—Plate 67.

(c) *Ammunition*.—30 rounds.

(d) *Preliminary arrangements*.—Belts will be prepared beforehand with 4 stoppages for each firer, e.g., separated case, miss-fire, bad fault in feed, two successive miss-fires, damaged round, empty pockets.

(e) *Method of conducting*.—The gun will be knocked off by the instructor as each stoppage occurs. Accuracy in re-laying will then be seen from the size of the complete group.

(vi) *By night*.

(f) *Target*.—Plain white screen. *Ammunition*.—30 rounds.

(g) *Method of conducting*.—The night sights will be on the gun and the gun laid using the tangent sight on the screen by means of a torch shown on to an aiming mark. The night aiming lamp having been put out, the firer will align the night sights on the lamp. Four stoppages selected from those

mentioned in (i) (d) above will be set up. The gun will be knocked off by the instructor as each stoppage occurs. Accuracy in re-laying will be seen from the size of the complete group.

**Note.**—All the above practices will be fired by 'New Hands'. PRACTICE 3 *only* will be fired by 2nd year Gunners.

3rd year (and older) gunners will not fire ANY practices in Part I.

Numbers will be coached during these practices.

### Ammunition Summary

Practice 1	30
" 2	10
" 3	50
" 4	60
Total	150

## PART II

### General Notes

1. This part consists of certain practices without ammunition, and maintenance of the gun (Part II-A) and other practices to be fired on a Field Range (Part II-B).

If the Brigade Commander considers that it is impossible to fire the practices of Part II-B on a Field Range he may modify them to suit local conditions.

Personnel will fire these practices as laid down on page 1.

2. **No coaching is allowed in this part.**

3. All targets will be engaged with service bursts (i.e., minimum of 25 rounds each).

## PART II-A

### PRACTICE 5

Fire discipline (without ammunition)

**Instructional**—1st year men.

**Classification**—2nd and subsequent year men.

(a) *Object*.—To test the machine gunner as No. 1 of a gun direct fire unit in:—

(i) Recognition of a target and the correct point of aim.



(ii) Correct method of applying fire.

(iii) Points of fire discipline.

(b) *Targets*.—The practices will be carried out in the open country, and when this is not feasible a landscape (panorama) target will be used.

It comprises three tests, i.e., the engagement of:—

(i) Target of little width—(Group A Targets).

(ii) Target with width having the same range each end—(Group B Targets).

(iii) Target with width having a different range to each end—(Group B Targets).

(c) *Ammunition*.—Nil.

(d) *Preliminary arrangements*.—

(i) Equipment required:—guns and tripods.

(ii) Any suitable number of fire units (sections) may be employed simultaneously, provided that the fire controller can be heard.

Guns may be placed close together for the purpose of the test and should be arranged by sections. The following are required to conduct the test:—

One superintending officer for each pair of sections.

A fire controller (officer or senior N. C. O.).

One testing N. C. O. for each gun, who should rehearse his duties beforehand.

(iii) Before beginning this practice the suitability of the reference points, targets, indications and the fire orders should be tested by requiring the fire controller to give them out to the testing N. C. O.'s who will act as Nos. 1 for that purpose.

(iv) No. 1 will take post and be informed whether his gun represents right, left or centre gun of the section. He will test his traversing clamp, assisted, if necessary, by the testing N. C. O. (Nos. 2 are not required).

(v) The fire controller will place himself where all Nos. 1 can hear him, and will describe the arc of fire and reference points. When these details have been carried out the test will commence.

(e) *Method of conducting*.—

(i) The fire controller will give fire orders to engage the targets mentioned in para. (b) above; at least two of the indications should require aids.

He will use no signals throughout the fire order. The signal to "Lay," "Fire," etc., will be conveyed by actual word, fictitious or actual ranges being included in each fire order.

(ii) When this practice is carried out in the open country the ranges given must be reasonably accurate.

When landscape (panorama) targets are used the fictitious ranges of the reference points or other prominent objects must be clearly explained to the Nos. 1 before the practice commences.

(iii) During the execution of each fire order, the testing N. C. O. will check the No. 1 of his gun as follows:—

When the fire controller orders "Lay" he will check the aim laid and note whether No. 1 has recognised the correct target and laid on the correct portion of the target according to the nature of the fire order.

When the order "Fire" is given, he will notice whether No. 1 traverses correctly, i.e., in correct direction, checking aim, etc.

When the order "Stop" is given, he will check the aim of No. 1 to see if he has relaid on to his original point of aim (irrespective of whether the original aim was the correct one or not).

In each of the above the No. 1 will be either right or wrong and the testing N.C.O. will record accordingly.

*Note*.—The superintending officer at his discretion will check the decisions of the testing N.C.O.'s. He will not allow No. 1 to call for a 'repeat' of the indication unless, in his opinion, that indication has been at fault.

(f) *Timing*.—No limit.

(g) *Scoring*.—The standards will be assessed by the following deductions:—

For each case of incorrect recognition	...	...	...	3 points
" " " " " laying	...	...	...	1 point
" " " " " traversing	...	...	...	1 point
" " " " " not relaying	...	...	...	1 point

Standard "A"—Not more than a total of two points deducted.

Standard "B"—Not more than a total of four points deducted.

Standard "C"—More than a total of four points deducted.

## PRACTICE 6. Night aiming (without ammunition)

Instructional—1st year men.



**Classification**—2nd and subsequent year men.

(a) *Object*—To test the machine gunner as No. 1 of a gun when firing at night in:—

(i) Accuracy in directing the planting of the night aiming lamp by the No. 3.

(ii) Tapping on to the lamp.

(iii) Re-aligning the line of sight on change of elevation being ordered.

The practice will be carried out in darkness.

(b) *Target*.—None.

(c) *Ammunition*.—Nil.

(d) *Preliminary arrangements*.

Equipment required:—Guns, Tripods, Night Sights, Aiming Posts, Night Aiming Lamps.

Any suitable number of guns may be used simultaneously but the following are required to conduct the test.

For each four guns—One superintending officer who will also act as fire controller. One testing N.C.O. for each gun, equipped with torch and watch.

The guns will be mounted with night sights or fixed line sights attached and night aiming lamps set up.

(e) *Method of conducting*—The superintending officer will, at his discretion, check the decisions of testing N.C.Os.

(f) *1st Night Aiming Test*.—Planting aiming lamp—no time limit.

(i) The testing N.C.O. will lay the gun with direction and elevation approximately suitable for planting the aiming lamp at a convenient distance in front of the gun. He will assist No. 1 with his torch to set his sights at 2,500 yards. When the above details have been carried out No. 1 will take his correct holding and the test will commence.

(ii) The fire controller will give the order "Out night aiming lamps." No. 3 will act as in section drill, night firing.

(iii) No. 1 will direct the planting of the night aiming lamp as in section drill, night firing. When satisfied with the position of the aiming lamp he will report to his testing N.C.O.

(iv) The testing N.C.O. will check the point of aim and record it as right or wrong.

(g) *2nd Night Aiming Test*.—(relaying for direction.)—No. 1 will first be given an opportunity of checking his aim on to the aiming lamp before the test commences.

(i) The testing N.C.O. will tap the gun off approximately 30 minutes to the right or left. He will not alter the elevation on the gun. No. 1 will then take his holding and the test will commence.

(ii) On the word 'GO' from the fire controller No. 1 will tap on to his aiming lamp making any slight adjustment of his line of sight that may be necessary. When correctly aligned on his aiming lamp he will report to the testing N.C.O.

(iii) The testing N.C.O. will take the time from the word 'GO' until No. 1 reports, and will ensure that No. 1 does not again touch the elevating wheel. He will check the point of aim. The aim will be recorded as right or wrong.

*Time*.—8 seconds.

(h) *3rd Night Aiming Test*.—(re-alignment for direction and elevation.) No. 1 will first be given the opportunity to check his elevation on the aiming lamp before the test begins.

(i) The testing N.C.O. will check the elevation with the clinometer, and will then tap the gun off about 30 minutes right or left. After that the fire controller will give the order "Position—Fire."

(ii) The fire controller will then order "Stop—All Up (or Down).....minutes" (within limits of 30 to 45 minutes).

(iii) On the word "Stop" No. 1 will tap back for direction, elevate or depress by the handwheel (which the testing N.C.O. will illuminate with his torch), and readjust his tangent sight slide for the new line of sight.

(iv) The fire controller will take the time from the word "Stop" and at the end of 16 seconds will shout "UP." The testing N.C.O. will ensure that, after the fire controller's word "UP" No. 1 does not again touch the wheel or tangent sight, nor tap the gun.

(v) The testing N.C.O. will check the line of sight, which must not have an error greater than 5 minutes either way. Both line of sight and elevation as above must be correct within the time limit for the man to pass the test.

(vi) *Time*.—16 seconds.



(vii) *Scoring*.—Correct aim layed within time limit qualifies in each test.

Standard "A"	...	...	Pass all the tests.
"B"	...	...	Pass two tests.
"C"	...	...	Below standard "B."

### PRACTICE 7. Maintenance of the gun in action

(May be carried out at 25 yards)

(a) *Object*.—To test the man in maintaining the gun in action by remedying stoppages, relaying and continuing to fire by day and night.

#### (i) By day (Classification)

(b) *Target*.—Plate 67. (c) *Ammunition*.—32 rounds.

(d) *Preliminary arrangements*.—

(i) Four guns will be mounted at 25 yards range from the targets, with suitable intervals between guns. Each target will have a single aiming mark.

(ii) Each gun will be set up with a stoppage and the feed block and crank handle will be covered with a cloth. Sufficient live rounds will be placed in the belt to ensure that a burst of at least 6 rounds can be fired on the target after the stoppage has been remedied.

Stoppages may be set up with live rounds or dummies, whichever is convenient.

The longer stoppages will be arranged, not more than one short-stoppage, e.g., miss-fire, weak charge, is to be set up.

(e) *Method of conducting*.—In this test the man will, in turn, remedy four stoppages, relay correctly, and fire a burst after each.

On the word "GO" the man will get down behind No. 1 gun, carry out the I.A., relay and fire on the target. He will repeat this procedure at each gun. Any authorised method of I.A. will be permitted, provided that the gun is not liable to be damaged, and the firer, etc., is not endangered.

(f) *Timing*.—1 minute 45 seconds from the word 'GO' until the last burst is fired.

(g) *Scoring*.—(a) Points up to a maximum of 68 will be allotted as follows.

*Time* (not over 1 minute 45 seconds) 20 points.

Correct I.A.—10 points at each gun, total 40 points.

Correct relaying—8 points for the whole practice.

Standard "A" ... 60 points or over.

"B" ... Under 60 and not less than 40 points.

"C" ... Less than 40 points.

(h) *Deductions*.

(i) *For firing over time*.—

For every 3 seconds or part of 3 seconds over time, a deduction of 1 point will be made.

(ii) *I.A.*

Failure to carry out I.A. necessary for the stoppage

set up	...	...	10 points
Action likely to damage the gun	...	...	2 points
Minor errors	...	...	1 point

*Laying*.—Will be judged by the relation of the centre of the group to the aiming point as follows, allowance also being made for the lateral displacement of the foresight.

	Elevation error up to	Lateral error up to
Laid correctly	2 inches.	1 inch.
Laid inaccurately	3 inches.	2 inches.

(Not relaid if beyond either above errors. For inaccurate laying deduct 1 point and for not relaying 2 points.)

#### (ii) By night (Instructional)

(a) *Target*.—Plain white screen.

(b) *Ammunition*.—30 rounds.

(c) *Method of conducting*.—As for Part I, Practice 4.

### PART II-B

#### FIELD RANGE PRACTICES

(See Fig. 2 on page 7.)

1. It will be explained to the firers that no targets are located more than 100 yards in distance from the aiming mark



on the prepared ranging patch. This patch will be between 800 and 1,000 yards from the selected firing point, and in close proximity to the target area.

2. In Practices 8 and 10, with 3rd year men time will be saved by allowing 2 guns to fire in turn in Practice 8 and simultaneously on separate targets in Practice 10 on one target area, i.e., another target being placed on the left (see para 11 of General Instructions).

3. Practices 8 to 10 inclusive will be completed by each firer on the same day.

### PRACTICE 8. Registration (Instructional)

(a) *Object*.—To practise observation and registration.

(b) *Target*.—Prepared patch. (Cinders, sand or plough with 10 foot screen, Fig. 1, as aiming mark.)

(c) *Ammunition*.—75 rounds.

(d) *Method of conducting*.—The range to the prepared patch will be given to the firer. The firer will note the range to the patch and the wind allowance. Not more than 3 bursts to be fired.

(e) *Time*.—No limit.

### PRACTICE 9. Switching (Classification)

(a) *Object*.—To test the firer's ability to switch from one target to another when control has broken down, necessitating a difference in elevation.

(b) *Targets*.—Two camouflaged screens at different distances neither more than 100 yards from the aiming mark and about 50 yards apart laterally.

(c) *Ammunition*.—100 rounds spaced in four groups of 25 rounds each.

(d) *Method of conducting*.—The gun will be mounted and loaded ready to fire. It will not be laid on either target. Sights at 600.

On the order to fire the firer will adjust his sights and engage either target. The firer will NOT be told the exact range to the targets.

As soon as he has expended his first group of rounds he will switch on to the other target and fire his second group.

(e) *Timing*.—No limit.

(f) *Scoring*.—

Standard "A" ... 4 hits on each target.

"B" ... Both Targets hit but not upto standard A.

"C" ... One Target hit.

(g) *Deductions*.—For more than 4 bursts ... 1 hit per target.

### PRACTICE 10. Gas. Engagement of obscured target (Classification)

(a) *Object*.—To test the firer's ability to estimate the range to hit a target and to engage it with the help of a gun aiming mark in a respirator.

(b) *Target*.—Camouflage screen. (Fig. 1.)

(c) *Ammunition*.—75 rounds.

(d) *Method of conducting*.—

(i) The gun will be mounted and loaded ready to fire. The target will be indicated to the firer who must be satisfied that he has recognised the correct target. On the command "LAY" the firer will lay his gun using his tangent sight. He will then be ordered to pick up a gun aiming mark within about 30 yards of the gun. When he has recognised his gun aiming mark and has registered the tangent sight reading, he will be ordered to re-set his sights at the range to the target.

If there are no suitable gun aiming marks, about 30 yards in front of the guns, arrangements will be made to provide them by scattering natural objects (stones, sticks, etc.) in the area before the practice begins. If the slope of the ground is such that gun aiming marks about 30 yards in front of the gun cannot be picked up then an aiming mark at a greater distance from the gun may be used provided it is a reasonable distance above or below the line of sight.

(ii) The order "Gas" will be given. While the firer is adjusting his respirator the superintending officer will tap the gun off and give a slight turn to the elevating wheel.

(iii) The order "Fire" will be given and the firer will engage the target with the aid of his gun aiming mark.

(e) *Timing* at the firing point—30 seconds allowed from the command "FIRE"



L.M.G.—35 seconds allowed.

(f) Scoring.—Standard "A" ...	...	...	6.
"B" ...	...	...	3.
"C" ...	...	...	Less than 3.

(g) Deductions.—For more than 3 bursts	...	1 hit.
For firing over time	...	1 hit

### PRACTICE 11\*

(a) Object.—To practise the Gunner in firing at aircraft, from the ground mounting or the Truck (either whilst stationary or moving).

(b) Targets.—Aircraft can be represented by very lights—sand filled 3 in. Mortar Bombs or rifle Grenades (with cloth streamers).

(c) Ammunition.—1,000 rds.	...	S. A. A. Ball.
350 rds.	...	Tracer.
i.e. 1,350 rds.	Per gun.	

(d) Conditions.—No time.  
No classification.

### Ammunition Summary

Part IIA.—Practice 7(i)	32	
7(ii)	30	Total 62

Part IIB.—Practice 8	75	
Practice 9	100	
Practice 10	75	Total 250

Grand Total—per Capita 312

In addition 1,350 rds. per Gun for Practice No. 11.

### Classification

In each practice the Machine Gunner is classified as standard A, B or C. He will be awarded points as follows:—

Standard A	...	...	10 points.
Standard B	...	...	5 points.
Standard C	...	...	Nil.

H. P. S. (5 practices) = 50 points.

Marksman = 40 points.

Service shot = 30–40 points.

Failed = under 30 points.

\* Fired when range facilities are available.

## PARTS III and IV

See Pamphlet No. 1 (India), Sec. 3, para 38.

### General

1. The next stages in the range training are the firing of Parts III and IV on a field range.

The objects and methods of conducting Parts III and IV are set out below under their respective headings.

2. Where range and training facilities permit most value will be obtained by firing Part III before section training and Part IV at the end of platoon training. Where both parts must be fired concurrently it is preferable that firing takes place late in the training, rather than early.

## PART III

### FIRE UNIT EXERCISES

#### Object

1. The ammunition allotted to Part III will be at the disposal of Commanding Officers for use under the following headings:—

#### Heading A

(i) To practise fire unit commanders (and their understudies) in obtaining fire effect rapidly at intermediate and long ranges by direct and indirect methods by day and night also in making corrections from observation of strike.

(ii) To exercise the personnel in fire discipline and the maintenance of sustained fire.

#### Heading B

To carry out section competitions by day and night. The Army Rifle Association (India) M. G. Fire Control match is a suitable example.

#### Gun Position

2. Whenever possible guns and the fire controller will be disposed in correct service positions and will comply with the normal procedure to ensure concealment and camouflage but it must be remembered that the chief consideration is to impart instruction and that guns must be sited with this as the primary consideration.



The artificial conditions imposed by safety precautions will usually render it impossible to introduce a true tactical setting. For the same reason it may be necessary to occupy a position which could not be occupied in service conditions.

Where, however, such necessity arises, and departure from service positions is unavoidable, the reason must be fully explained to those under instruction, and every effort must be made to prevent false lessons being learnt.

### Range requirements

3. The firing point need not be extensive (100—150 yds. per platoon should suffice) but a wide field of fire with plenty of natural detail at intermediate and long ranges is desirable.

For indirect fire, a crest is required but should such not exist, the methods of indirect fire can be carried out from direct fire positions

### Danger area

Attention is directed to the Pamphlet on Field Ranges.

### Targets

4. These should be natural and selected mainly in areas which are likely to give observation of strike, and should vary in shape and range to bring out the various methods of fire.

### Ammunition

5. In sub-allotting the available amount of ammunition consideration will be given to the following:—

(a) Direct and indirect fire should normally receive equal attention.

(b) A high average standard of efficiency is to be aimed at and not the training of a few experts, consequently every potential fire unit commander will be exercised and Nos. 1 and 2 frequently changed over.

(c) The allotment per platoon is made on the following basis which is intended to serve as a guide only in sub-allotments for individuals:—

For Part III the following require practice in Fire control by day.

		Total per platoon
Platoon commanders	@ 500 rds each	500
" Havildars	@ 500 rds "	500
2 Sec Guides per platoon	@ 750 rds "	1500
2 " Naiks "	@ 750 rds "	1500
4 Potential N.C.Os. "	@ 750 rds "	3000
Total per platoon	...	7000

The following acquire practice in Fire control by night.

2 Sec Guides per platoon	{ @ 250 rds each	500	
2 Sec Naiks		500	
4 Potential N.C.Os.		1000	2000
Total required per platoon		...	9000

12 Platoons @ 9000 = 108,000.

In addition to the above personnel in Bn HQ, Administrative platoon, Coy HQ and Administrative Sections require practice.

4 V.C.Os.  
19 Havildars  
Say 20 Nks

43 @ 500 rds each = 21500

Total for Part III for 12 platoons	...	108,000
for HQ personnel	...	21,500

Grand total for Part III	...	129,500
--------------------------	-----	---------

(d) Tracer and observing ammunition are of value, particularly when observation of strike is not sufficient to judge fire effect. In such conditions, unless ample tracer or observing ammunition is available, exercises framed under heading A (i) above are of little value. Therefore these exercises should be confined only to those fire controllers who have little or no



experience of fire control with ball ammunition, but the need to refresh experienced fire controllers must not be overlooked.

The ammunition thus saved will be better spent on competitive exercises framed under heading B above, where the results of the shooting can be judged from the score.

### Heading A

#### *Method of conducting*

#### *Before the day of firing*

6. (i) The Platoon Commander should divide his sub-unit into two portions of two sections each; one portion being instructed by himself and the other by his Pl. Hav. (The 2nd-in-Command may replace either the Pl. Comd. or the Pl. Hav.)

The Commander should allot a firing point and arcs of fire for each portion. The officer or N.C.O. directing each portion will decide targets for each fire controller; each shoot being designed to bring out some definite lesson.

A range card will be prepared for the director of the exercise. The fire controller will obtain his ranges from a range taker belonging to another section.

#### *Day of firing*

(ii) *Direct Fire.*—Exercises should be directed by the Platoon Commander and his 2nd-in-Command or Hav., one section of each portion of the platoon firing at a time. All fire controllers should be assembled under the Commander or 2nd-in-Command who will discuss and comment on the action and orders of each as he carries out his shoot.

At the same time, the spare gun numbers should be collected under a suitable N.C.O. who will discuss with them and comment on the action of the gun numbers, who will be frequently changed over. All range takers of the platoon should be exercised in taking ranges and in observation of fire.

(iii) *Indirect Fire.*—It will usually only be possible for two sections to fire at a time. The Commander will assemble the N.C.Os. at the O.P., and will discuss with them, and comment on each shoot.

The remainder of the platoon will assemble near the gun position under other N.C.Os. to discuss the action of the personnel there.

(iv) *Night Fire.*—Sections will be practised both in the conditions when guns are in action before dark and when reconnaissance parties only have been able to approach the gun position before dark. Tracer should be used to check parallelism and switches and targets to record fire effect. Both long and short switches entailing an alteration in elevation should be practised.

### Heading B

7. (a) *The objects of section competitions are.*—

To provide Commanders with a guide to the comparative efficiency of their sections.

To provide an incentive to Section Commanders to reach a high standard in field duties, fire discipline and accuracy of fire by day and night.

(b) *Method of conducting.*

(i) Targets, which may be of any size, shape or material so long as the hits on them can be recorded, should be concealed or partly concealed in natural cover.

(ii) The ranges to the targets should not be made known before-hand.

(iii) A time limit should be imposed which might include the time taken for the section to move to the position in readiness, come into action, and engage the targets.

(iv) Scoring may be either solely by hits, or by the number of targets hit; or may include points for field duties, advanced handling and drills.

(v) As far as possible, the gun numbers should be changed round during the competition to ensure that the high standard of shooting by a few individuals does not, of itself, decide the result.

(vi) Practice in the replenishment of ammunition may be included by allowing only a proportion of the belts at the guns in the first instance or arranging that belts are only partially filled.

## PART IV

### TACTICAL EXERCISES

#### General

1. Part IV consists of tactical exercises carried out on a field range with ball ammunition by day and night. The



preparation and conduct of Part IV is the responsibility of the Company and Platoon Commander under the general supervision of the Commanding Officer.

### Object

2. (a) To practise some of the roles which Sections may be called upon to undertake and to learn certain definite lessons therefrom.

(b) To provide a Platoon Commander with a means of testing the capacity of his sections to apply correct procedure to these roles, as well as practical proof of the standard of fire control and fire discipline which has been attained.

### Framing of exercises

3. (a) Each exercise will be based on a simple tactical situation. Any assumed locations and movements of enemy and our own troops will be explained throughout the exercise and indicated by flags, etc.

(b) Where range facilities exist it may be possible for the Platoon Commander to exercise all the sections of his platoon in one scheme. Such an exercise must be timed and arranged so that :—

(i) The safety of the other sections taking part is ensured.

(ii) The platoon commander or an assistant director is present with each section during its reconnaissance, occupation of positions and engagement of targets.

(iii) In cases where a number of sections have to be exercised at the same time, range safety precautions may impose considerable limitation on the choice of positions to be occupied by sections, with the result that Platoon Commanders may be compelled to select positions which are less suitable than others. This tendency can be reduced to a large extent by skill on the part of the Platoon Commander when drawing up the exercise by adjusting the tactical setting to suit the ground.

(iv) Among the targets selected for engagement should be screens, camouflaged or hidden behind natural objects such as bushes, on which the number of hits can be recorded.

(v) The effect of gas and smoke and dive bombing whether our own or the enemy's, in observing the target should be considered in a proportion of exercises.

(vi) At least one exercise should be so framed that a long carry from the transport to the gun position will be necessary in one situation.

### Danger area

4. In framing schemes for Part IV great care should be taken that they conform to the local safety conditions (see Pamphlet on Field Ranges for Small Arms and Anti-Tank Guns).

### Method of conducting

5. (a) For safety precautions and organization see Pamphlet No. 1 (India), Sec. 3, para 29 *et seq.*

(b) An exercise should start with the Platoon Commander's orders given on the ground at the place where they would be given in war.

(c) During the conduct of the exercise, special attention will be paid to the following points :—

(i) Reconnaissance and issue of orders by section commanders.

(ii) Care and concealment of guns, personnel, stores and transport during all phases.

(iii) Fire direction, fire control and fire discipline, direct and indirect, and by night.

(iv) Ammunition supply (including belt and magazine filling in action). In order to ensure that the chain of supply operates properly on all occasions, belts should normally be filled with 5 rounds each but *L.M.G.* magazines will be filled with 30 rounds.

NOTE—Where suitable range and ground facilities exist all the platoons in the company may be exercised together (in conjunction with other arms if possible) with the object of introducing greater realism.









This manual has been scanned by the  
Vickers MG Collection & Research Association

[www.vickersmg.org.uk](http://www.vickersmg.org.uk)

Please support the work of the Association.

Click on the image to donate through PayPal:



Or regularly support us through Patreon:

